DOCUMENT RESUME

ED 407 127 PS 025 357

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TITLE Parent Involvement in Children's Education: A Critical Assessment of the Knowledge Base.
PUB DATE Mar 97
NOTE 40p.; Paper presented at the Annual Meeting of the American Education Research Association (Chicago, IL, March 24-28, 1997).
PUB TYPE Information Analyses (070) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Academic Achievement; *Educational Research; Elementary Secondary Education; Literature Reviews; *Parent Participation; *Parent School Relationship; Parent Student Relationship; Research Design; *Research Problems
IDENTIFIERS *Research Quality

ABSTRACT

While most practitioners and researchers support the recent policy direction for increased parent involvement in their children's education, little consensus exists about what constitutes effective parent involvement. A major source of this confusion is the lack of scientific rigor in the research upon which practice and policy is based. This literature review examines over 200 articles on parent involvement to highlight what is known and to point to significant gaps in research, programs, and practice. Papers reviewed include 23 opinion papers and program descriptions, 13 theoretical papers, 30 literature reviews, and 145 empirical studies. The review points to significant problems with the literature. Specifically, non-experimental designs, not testing for the specific effects of parent involvement, inconsistent operational definitions of parent involvement, and reliance on non-objective measures are four methodological limitations which have compromised the rigor of much parent involvement research. It concludes with seven recommendations for future research, including use of experimental procedures (especially random assignment), making explicit which aspect of parent involvement is being measured, and use of objective measurement such as direct observation and standardized data collection tools. Contains approximately 211 references. (EV)

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Parent Involvement in Children's Education: A Critical Assessment of the Knowledge Base

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PS 025357

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ABSTRACT

Over two hundred articles on parent involvement are critically reviewed to highlight what is known and point to significant gaps in research, programs, and practice. Empirical studies examining the impact of parent involvement on children's achievement are assessed for experimental rigor, isolation of parent involvement effects, use of objective measurement, and consistency of definition and measurement. Seven recommendations for future research are discussed.

THE MANDATE FOR PARENT INVOLVEMENT

Recent major legislation -- The Goals 2000: Educate America Act and the reauthorized Elementary and Secondary Education Act (ESEA) -- has made parent's involvement in their children's education a national priority. School districts nationwide are being encouraged to reexamine their parent involvement policies and programs and to demonstrate innovative initiatives in order to obtain federal education dollars. Eligibility for Title I money is now contingent upon the development of school-family "compacts" in which families and schools agree to assume mutual responsibility for children's learning. Partnerships will be forged between homes, schools, and communities requiring an unparalleled level of contact and communication between parents and educators (e.g., U.S. Department of Education, 1994).

While most practitioners and researchers support this policy direction for increased parent involvement, little consensus exists about what constitutes effective parent involvement. Confusion persists concerning the activities, goals, and desired outcomes of various parent involvement programs and policies. A major source of this confusion is due to lack of scientific rigor in the research upon which practice ad policy is based. Specifically, non-experimental designs, not testing for the specific effects of parent involvement, inconsistent operational definitions of parent involvement, and reliance on non-objective measures are four methodological limitations which have compromised the rigor of much parent involvement research. Nonetheless, the early studies suggesting the importance of parent involvement are treated as definitive, regardless of the equivocal nature of the data. Extrapolations have been made that all types of parent involvement are important, and even necessary, from limited data concerning specific forms of parent involvement. This may lead to unrealistic expectations of what many programs can actually accomplish. In addition, many programs and policies promoting parent involvement are not explicitly based on the evidence that does exist. Thus, less is known about parent involvement than is generally realized.

A CRITICAL REVIEW OF THE RESEARCH LITERATURE

Much remains to be learned before schools and families can work together to make the promise of parent involvement a reality. The current national policy agenda has created a window of opportunity for improving programs and practice through high quality research. This literature review was undertaken to bring clarity to the field by critically analyzing the rigor of the empirical studies to highlight what is known and point to significant gaps in research, programs, and practice.

A total of 211 papers were included in this review: 66 non-empirical studies (23 opinion papers/program descriptions, 13 theoretical papers, and 30 reviews) and 145 empirical studies (14 descriptive studies and 130 inferential studies.) These papers represent a comprehensive but not exhaustive survey of the research literature.

Non-Empirical Articles

Although the primary focus of the literature review was to examine the empirical evidence regarding the impact of parent involvement, 67 non-empirical papers were considered as well. The value of including these papers was two-fold. First, including other literature reviews in this reviews and assessing whether or not those authors examined the quality of the articles reviewed provides a more conservative perspective on the current state of knowledge than is currently available. Second, including opinion papers, program descriptions, and theory in this literature review allowed a determination of the extent to which current programs and practice build upon theory and existing empirical evidence. This approach also highlights theories and models which have yet to be tested empirically.

Opinion Papers and Program Descriptions

Twenty-three papers in the review were classified as opinion papers and/or program descriptions (e.g., Binford, 1993; Chimerine, Panton & Russo, 1993; Collins, Moles & Cross, 1982; Council of Chief State School Officers, 1991; Cruz, Holland, Garlington, 1981; Dolan & Haxby, 1991, Dulaney, 1987; Fruchter, Galletta & White, 1993; Loucks, 1992; Simich-Dudgeon, 1993; Siu, 1992; Smith & Carroll, 1988; Snodgrass, 1991; Williams & Chavkin, 1989).

While many opinion papers were weak, some represented important contributions to practice. One particularly promising project is the League of Schools Reaching Out. The projects's eight innovative programs were summarized in two papers (Davies, 1991; the League of Schools, 1993) and described in detail in Palanki and Burch's (1995) full report. Two aspects of this broad initiative were especially noteworthy: the emphasis on a partnership model in which parents, principals, and teachers collaboratively developed an enhanced parent involvement component in their schools; and the flexible design in which participants customized programs according to local needs. Goodson, Swartz and Millsap's (1991) description of 17 promising programs and common implementation challenges was also noteworthy.

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In contrast, many opinion papers were less scholarly. In these, authors offered suggestions (Edwards & Young, 1992; Mannan & Blackwell, 1992; Poirot & Robinson, 1994), described projects (Dolan & Haxby, 1992; Hunter, 1989), or argued for a specific idea (Dixon, 1992; Lawrence; 1994) without the benefit of a sound theoretical framework. In general, these papers were written in an informal manner and did not present data or indicate how previous empirical work laid the foundation for their ideas. While some of these papers can be used to generate testable hypotheses, they were not themselves based on empirical findings. Therefore, none extended the state of knowledge in the field.

Theoretical Articles

Thirteen articles were scholarly papers published in peer-reviewed professional journals in which the author(s) presented a theoretically grounded framework for conceptualizing parent involvement. Most theoretical papers presented viewpoints on the importance of parent involvement and/or the nature of interactions between schools and homes (e.g., Coleman, 1991; Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, & York, 1966; Comer, 1988a; 1988b; Gordon, 1978; Kagan, 1987; Ziegler, 1987). Other papers offered categorical systems for classifying types of involvement (e.g., Epstein, 1985; 1995 Gordon, 1976).

Broadest in scope is Gordon's (1978) perspective on three models of school-home interactions. In the parent-impact model, schools enhance the family's capability to improve the family's home learning environment. In the school-impact model parents take responsibility to change schools to be more responsive to families so that children's achievement can improve. Gordon discussed several drawbacks of these first two models. Specifically, he noted the potential for a deficit perspective towards families and the lack of an ecological context for understanding the influences on children's achievement in the first model. In the second model he noted the lack of emphasis on benefits to parents of involvement. As an alternative, he offered the community-impact model which acknowledges the bi-directional nature of the influences between children, families, and schools. Gordon's synthesis has alerted other theorists and practitioners to appreciate the complex way in which family, school, and community systems interact to influence children's achievement (e.g., Delgado-Gaitan & Ruiz, 1992; Leler, 1983; Swap, 1990).

While recognizing the mutually reinforcing nature of homes and schools in the education of children, Coleman et al.'s (1966) framework approximates the parent-impact model most closely. According to Coleman, both homes and communities provide children with capital

(resources, skills, and support). He argues that because of worsening economic conditions, many poor urban families and communities cannot provide children with the capital they need to succeed in school. He recommends that schools rebuild children's social capital by proactively reaching out to families, linking parents with each other, bringing parents more fully into the educational process, and by linking families to community resources.

In contrast, the ideas of Cummins (1986) approach the school-impact model in its call for radical changes in how schools relate to families in order to improve the achievement of bilingual and minority children. A central tenet of his framework is that students are empowered or disabled depending upon their interactions with schools. He recommends that schools become a force to "transform society by empowering minority students rather than reflect society by disabling them" (Cummins, 1986, P. 34). To accomplish this goal he suggested an additive language approach, community participation, interactive teaching style, and assessments of children which function to advocate for their needs rather than to blame or label them.

Exemplifying the community-impact model is Comer's (1988a) School Development Project. Attributing school failure among poor minority children to the cultural misalignment between homes and schools, Comer developed a project to improve the climate of the school and enhance children's achievement. His model emphasized attention to the developmental and emotional needs of children and families. Parent involvement in the development and implementation of the intervention were key features of his project from the outset. His model has been practically applied in New Haven and implemented in 600 schools nationwide.

Two theorists, in addition to developing models, have created classification systems to categorize different types of parent involvement (Epstein, 1986; 1992; 1994; Gordon, 1976). Both systems included parents as home teachers, parents volunteering in the classroom, parents as audience, and parents as decision-makers. Gordon included a separate category for parents as paid aides in the classroom. Epstein included categories for community involvement, schools reaching out to parents, and for the primary responsibility of the parents to nurture and raise their children. While the typologies are similar, Epstein's (1994) six types of parent involvement has emerged as the primary classification system to date.

Overall, the theoretical papers provide frameworks for understanding parent involvement and suggest several specific avenues that can be tested in future empirical efforts. They do not present data and, therefore, do not provide evidence in support of the benefits of parent involvement for children's school achievement.

Review Articles

Thirty literature reviews were included in this review. Many of these were relatively narrow in their approach (e.g., Black, 1993; Clark, 1990; Cotton & Savard, 1982; Eric Clearinghouse, 1985; Hart, 1988; Liontos, 1992; Mervis & Leninger, 1993; Wallace & Walberg, 1993) although a few aimed to be more comprehensive (e.g., Barth, 1979; Becher, 1986; Christenson, Rounds, & Gorney, 1992; Henderson & Berla, 1994).

Few of the literature reviews considered the quality of the studies included in their assessment of the state of knowledge (e.g., Sattes, 1985; Sevener, 1990; Walberg, 1984).[1] Rather, there is an apparent assumption in the field that published research is of adequate quality and that conclusions can be based on their findings. Some researchers developed programmatic implications based on the evidence in the review (e.g., Bempechat, 1990; Maryland State Board of Education, 1990; Ziegler, 1987), and others highlighted existing promising program models (Moles, 1993b; Nettles, 1991; Olmstead & Rubin 1983b; Thompson, 1993).

Nearly all reviewers pointed out the need for more rigorous research (e.g., Moles, 1982; Scott-Jones, 1984; Stearns & Petersen, 1973; Zela-Koort & Nardine, 1990). Nonetheless, they concluded the unequivocal nature of the evidence regarding the positive impact of parent involvement on children's academic achievement and supported the development of policies and the implementation of programs and practices (e.g., Henderson & Berla, 1994). These conclusions -- based as they are on ambiguous evidence -- reflect the field's commitment to the importance of parent involvement.

Empirical Studies

One hundred and forty-five empirical studies were included in this literature review. Thirty-seven studies considered the benefits of involvement to parents themselves (e.g., Ciurczak, 1995; Dauber & Epstein, in press), described parent involvement using non-inferential statistics (e.g., Blakely & Stearns, 1986; Chapey, Trimarco, Crisci & Capobianco, 1986; Chavkin & Williams, 1985; Chavkin & Williams, 1993; Davis, 1989; DeFreitas, 1991; Goldenberg, 1989; Hannon & Jackson, 1987; Jay & Shields, 1987; Williams, 1992), determined predictors of involvement (e.g., Bauch, 1993; Dempsey, Bassler & Brissie, 1987; Lopez, 1992; Moles, 1993a;

[1] One exception is the paper by Graue, Weinstein, and Walberg (1983) in which the authors reported an extensive list of factors they took into account in assessing the studies in their review. However because of inconsistencies in their coding system, their interpretation of the threats to internal validity may differ from those presented in this review.

Wood, Hoag & Zalud, 1992), or simply described involvement practices (Kiley, 1995; McDaniel & Mack, 1992; Mordkowitz & Ginsburg, 1986; Motsinger, 1990; Nardine & Morris, 1991, Nweze, 1993; Pryor, 1994; Shartrand, Kreider & Erikson-Warfield, 1994; Williams & Chavkin, 1985; Wohlstetter, Smyer & Mohrman, 1994).

The remaining 108[2] articles investigated the link between parent involvement and student achievement outcomes and comprise the core of this literature review as they form the knowledge base concerning the impact of parent involvement. These studies are considered in more detail below, specifically in light of the four methodological issues of (1) use of experimental procedures; (2) extent to which the effects of parent involvement were isolated; (3) definition of parent involvement; and (4) objective measurement of parent involvement.

Use of Experimental Procedures

As Campbell and Stanley (1963) have noted, conducting experimental field research is extremely challenging as it aims to satisfy the practical needs of an applied setting with the demands of rigorous scientific methodology. It was, therefore, not surprising that the majority of empirical studies included in this literature review used non-experimental designs: pre-experimental, quasi-experimental, and correlational. Based on the standards outlined (Campbell & Stanley, 1963), many of these studies were seriously flawed. The following discussion of the empirical papers focuses on the methodological limitations associated with different research designs in order to alert practitioners and researchers to some of the gaps in the existing research on parent involvement.

Pre-Experimental Studies

Sixteen studies (14.4%) were classified as pre-experimental (e.g., Bloom, 1985; Czech, 1988, Goldenberg, 1987; Jennings, 1993; Oliver, 1990). In these studies a parent involvement program or component of a program was instituted to improve student achievement. There was either no comparison group or the comparison group was not randomly assigned nor assessed at pretest. Thus, regardless of the magnitude of the students' improvement, or the richness of the intervention, it would be impossible to ascribe any improvement in the children to the parent involvement program.

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[2] One article reported four separate studies, resulting in 111 studies included in this review.

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Armor, Conry-Oseguera, Cox, King, McDonnell, Pascal, Pauly, and Zellman (1976) provides an illustrative example of a pre-experimental study in which few design controls were implemented. The authors reported a relationship between the number of parent visits to children's classroom and student reading achievement. Findings revealed that students in classrooms with more parental involvement scored higher on average than those in non-involved classrooms. From this result, the authors concluded that parent involvement was responsible for the higher achievement. However, in this pre-experimental study a number of plausible alternative explanations for the better reading achievement in the high involved classrooms remained uncontrolled. For example, teachers who were able to engage parents as classroom visitors may have been more competent teachers in other ways as well. Differences in teaching style may have accounted for the better performance of the children rather than the higher levels of parent involvement. Thus, it could not be concluded that it was parent involvement per se that made the difference in student achievement.

Similarly, studies in which a single child was compared to him or herself after parent-involvement interventions (Chavkin, 1993; Epstein, Herrick & Coates, 1994; Morgan & Lyon, 1979), or behavior modification programs (Ryback & Staats, 1970) failed to control for the possibility that improvement was due to the child's development and maturation or to other events intervening between the pretest and the posttest that were not tested.

Quasi-Experimental Studies

Thirteen (11.7%) studies in this review employed quasi-experimental designs (e.g., Scott-Jones, 1987). While stronger than pre-experimental studies, these studies still failed to control all seven threats to internal validity because they lacked random assignment (e.g., Glaser, Larsen & Nichols, 1992; Gillum, Schooley & Novak, 1977; Marcon, 1993; Moorehouse, 1991; Stevens & Slavin, 1992; Walberg, Bole & Waxberg, 1980). Without pretest comparability between the families receiving a parent involvement program and the comparison families, several plausible alternative explanations remain untested for any improvement in the program families. Thus, findings from quasi-experimental studies need to be considered suggestive rather than conclusive.

For example, in a study of the effects of a parent involvement enrichment program, Logan and Tulloch (1992) compared the scores of students who participated in the intervention to scores of students attending the same school one year prior to program implementation. Results revealed that the scores of the program children were higher on average than the scores of the children from the previous year who did not receive the program. From this, the authors

concluded that the program produced the higher scores. However, because students were not randomly assigned to groups, alternative explanations for the higher scores of the program children could not be ruled out. That is, while groups were matched on demographics and intellectual ability, other variables such as differences in teacher practices, school policies, or composition of the student body were not controlled, and any of these could have contributed to the higher scores.

Ex Post Facto/Correlational Designs

Seventy-nine studies (71.2%) were ex post facto or correlational in design (e.g., Caplan, Choy & Whitmore, 1992; Chen & Stevenson, 1995; Coleman & Hoffer, 1987; Epstein, 1991; Grolnick & Slowiaczek, 1994; Raymond & Benbow, 1986; Weishew & Peng, 1993). As in quasi-experimental studies, level of involvement is naturally occurring, not randomly assigned. Unlike quasi-experimental studies, parent involvement is a continuous variable which is correlated with a continuous dependent variable without a treatment or intervening program.

Such studies pose two methodological challenges: inability to infer direction of effects and lack of control of all possible alternative variables. In several ex post facto designs children of high involved parents (e.g., more supportive of achievement, providing a more enriched environment, helping more with homework) were found to achieve more than children of low involved parents. These differences in achievement were attributed to level of parent involvement although other factors may have accounted for the differences. Low involved and high involved parents may differ in ways other than involvement which actually might account for the differences in the children's achievement. Nonetheless, some researchers suggested directionality (e.g., Baker & Stevenson, 1986; Herman & Yeh, 1983; Kurdek & Sinclair, 1988; Phillips, 1992) or causation (Keith, Reimers, Fehrmann, Pottebaum & Aubey, 1986; Henggeler, Cohen, Edwards, Summerville & Ray, 1991; Muller, 1993; Reynolds, 1992; Steinberg, Lamborn, Dornbusch, & Darling, 1992; Stiller & Ryan, 1992) not warranted by the correlational data.

One study that highlights both of these problems is Gottfried, Fleming, and Gottfried (1994) in which naturally occurring differences in maternal motivational style were correlated with naturally occurring differences in student achievement. Significant correlations were attributed to a causal relationship, in which maternal behaviors cause student achievement. However, equally plausible is that a third variable (such as parental expectations for child's success, parental level of education, or even teacher practices which shape both parents and children) affected both variables rather than one affecting the other. For example, perhaps

parents with higher levels of education have different motivational styles and higher performing children. Rather than a third variable "causing" the relationship, it is also possible that the hypothesized relationship exists but operates in the direction opposite than presumed by the authors. In other words, rather than mother's motivational style "causing" the student's performance, perhaps mothers of high achieving students behave a certain way due to the performance of their children; that is, they adapt their motivational style according to the performance level of their children.

One the other hand, some researchers used ex post facto and correlational procedures to good effect. In the absence of random assignment they employed analytical procedures (e.g., multiple regression, path analysis, analysis of covariance) which allowed for the statistical control of extraneous variables. For example, several researchers (Baydar, Brooks-Gunn, & Furstenberg, 1993; Connell, Spencer & Aber, 1994; Keith, Keith, Troutman, Bickley, Trivette, & Singh, 1993; Leiter & Johnson, 1994; Sameroff, Seifer, Baldwin, & Baldwin, 1993) controlled for competing "third variables" and reported the results in terms of strength of association rather than in terms of causation. Keith et al. (1993) analyzed the strength of the relationships between two parent involvement variables (talking about school and parental aspirations) and eighth grade student achievement after controlling for the effects of prior achievement and several demographic variables. Through causal modeling they were able to assess the relative impact of different types of parent involvement variables for achievement outcomes. A large sample and an extensive survey instrument with several interrelated items allowed for analyses more advanced than a simple ex post facto design. Several alternative explanations were ruled out through the use of covariation. Thus, while it is always preferable to rule out threats to internal validity by experimental design -- notably random assignment to groups -- rather than by statistical adjustment (Cook & Shadish, 1994), these studies demonstrate the potential of ex post facto designs to contribute to the knowledge base.

True Experiments

Only three studies (2.7%) employed true experimental designs. In these, families were randomly assigned to two or more groups, compared at pretest, either received a parent involvement intervention or was in the control group, and then tested again after the intervention. Changes in children's achievement from pretest to posttest in the treatment group can be attributed to parent involvement with considerable confidence.

In one experimental study, Tizard, Schofield, and Hewison (1982) investigated the effects of parents listening to their children read at home. Children were randomly assigned to three groups: a control group, a group that received extra coaching in reading at school, and a group of children whose parents were trained to listen to them read at home. Because random assignment to groups distributed pre-existing differences such as student ability and classroom practices equally across groups, the findings that the home reading group attained higher reading scores at posttest than either of the two other groups could be attributed to the parent involvement intervention with confidence. An additional strength of this particular study was the inclusion of the group receiving extra coaching at school, as it ruled-out the possibility that the intervention could be implemented by adults other than parents.

In summary, failure to employ experimental procedures was a problem for the majority of the studies included in this literature review. The pre-experimental and quasi-experimental studies lacked the design and/or statistical controls necessary for adequate internal validity. Therefore, results reported must be considered suggestive and awaiting confirmation in more rigorous empirical efforts. Some correlational/ex post facto studies -- especially those which employed theoretically relevant statistical controls -- produced promising findings which warrant replication.

Isolation of Specific Parent Involvement Effects

The second methodological issue considered in reviewing these studies was the extent to which the researchers were able to isolate the effects of parent involvement. This issue should be considered from two vantage points. The first is that parent involvement effects need to be isolated from the potential effects of the involvement of other adults. In most evaluations children in a parent involvement intervention are compared to children not receiving the intervention. Improved child outcomes are attributed to the specific benefits to children when their parents are involved in their education (e.g., Gambrell, Almasi, Xie, & Heland, 1995; McDonald, 1993, Olmstead & Rubin, 1983a). An alternative explanation is that children's performance will improve when they receive extra assistance from any adult not necessarily their parent (e.g., McPartland & Nettles, 1991). However, this alternative explanation was rarely controlled due to consensus in the field that parent involvement programs have their impact not only through specific activities, but within the context of the care giving relationship (Bronfenbrenner, 1974; 1979). It is presumed that by participating in such programs a network of

interrelated family factors change which ultimately affect children's school achievement (i.e., home environment and parental expectations for their children's performance). It is believed that were the participating adult not the parent this "ripple effect" would not occur. While this explanatory theory is compelling and well accepted, it nevertheless, awaits full empirical confirmation.

Another way parent involvement effects need to be isolated is from other aspects of an intervention; and is therefore primarily relevant to program evaluations. Researchers often concluded that parent involvement was the critical factor in the success of an intervention program which offered a variety of concurrent activities such as an educational curriculum for children or social services for the family. However, this conclusion was not warranted because analyses failed to test the specific effects of parent involvement independent of the effects of other components of the program.

For example, Cicchelli & Baecher (1993) presented the results of the Fordham Stay in School program, a comprehensive drop-out prevention program for children in kindergarten through third grade. Drawing on the theoretical framework of Comer (1988a) the authors developed a collaborative project to enhance the climate of the participating schools, with a specific emphasis on a holistic understanding of the children and their families. Components of the program included parental workshops, a parent drop-in center, counseling for families, and play therapy and tutoring for the children. Children's pretest and posttest scores on an achievement test were compared along with absenteeism rates and parental utilization of services. Based on the pattern of results, the authors concluded, "...parental involvement was critical in bringing about positive changes in absenteeism and special education referrals" (Cicchelli & Baecher, 1993, p. 38). However, because many other components of the program were implemented at the same time, the specific pathway from pretest to posttest could not be identified.

Definition of Parent Involvement

The third methodological issue on which this review focuses is inconsistent definitions of parent involvement. This issue was clearly evident in the empirical studies included in this literature review. While all studies measured the construct of parent involvement, few operationalized it the same way. Some researchers focused on the attitudinal components of parental involvement by defining it as parental aspirations (Soto, 1988; 1989) or expectations for

the child's educational success (e.g., Crystal, Chen, Fuligni, & Stevenson, 1994; Thompson, Entwisle, Alexander & Sundias, 1992). Other researchers focused on the behavioral indices of parent involvement such as parental assistance with homework (e.g., Eagle, 1989) or parental attendance at parent-teacher conferences (e.g., Lareau, 1987; Stevenson & Baker, 1987). In other cases parent involvement was conceptualized more broadly as general parenting style (e.g., Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Dornbusch, Ritter & Steinberg, 1991) or family interaction patterns (e.g., Vickers, 1994). In some studies it was unclear how parent involvement was defined (e.g., Keith & Lichtman, 1992). The use of idiosyncratic definitions and measurement of parent involvement makes it difficult to assess cumulative knowledge in the field.

Even when focusing on the same aspect of parent involvement, researchers have operationalized it inconsistently. For example, while several researchers have examined the impact of the quality of the home environment on children's academic achievement, rarely did two studies employ the same definition. Coon, Fulker, DeFries and Plomin (1990) defined home environment as mother's responsiveness, avoidance of restriction, organized environment, play facilitation, maternal involvement, and daily variety. Alternatively, Barton and Coley (1992) measured the home environment as the number of parents in the home, the home library, reading at home, watching television at home, working on homework, absence from school, parent involvement, and family resources. While there is clearly overlap at the conceptual level, they are quite distinct. The former emphasizes the processes within the parent-child affective relationship that may impact student achievement while the latter emphasizes the material and psychological resources families allocate to children. Equally problematic is the practice of measuring only a specific aspect of parent involvement but discussing results in terms of the broader construct (e.g., Keith et al., 1993).

Undoubtedly, the field of parent involvement research could be strengthened by both a more consistent conceptualization of parent involvement and its measurement at the empirical level. Although Epstein's (1994) classification system has provided a useful definitional typology of parent involvement, it has not yet been used to guide empirical efforts. In fact, reliable and valid measurement tools have yet to be developed based on Epstein's or any other framework.

Objective Measurement

The fourth limitation considered in this review was researchers choice to measure parent involvement by the subject's (or some other informant's) report, rather than by observation or objective measure. Only one quarter of the studies (27%) utilized objective measurement of parent involvement. Of these, only five employed direct observation of parental behavior (e.g., Arbuckle & MacKinnon, 1988), another five collected parent involvement data from attendance or other school records (e.g., Yang & Boykin, 1994), seven coded parent involvement from demographic records (e.g., Boyd & Parish, 1985), and 13 measured parent involvement as participation in a parent training program. The remainder relied on parent self report (e.g., Phillips, Smith & Witte, 1985; Reynolds & Gill, 1994; Tucker, Brady, Harris, Fraser & Tribble, 1993), student report of their parent's behavior (e.g., Hansen, 1986; Leung, 1993a; 1993b; 1993c; Wang & Wildman, 1994), or teacher reports of the parents (e.g., McDill, Rigsby & Meyers, 1969; Reynolds, 1989; Reynolds & Bezruczko, 1993). Thus, more is known about what parent say they do than about what they actually do.

The bias and/or potential social desirability confound of using subjective report in parent involvement research is obvious. Because parents, students, and teachers may have a vested interest in reporting parents' behavior in a certain light, there may be distortions in the parent involvement data collected in many studies. Lack of objective data becomes especially problematic when the independent and dependent variables are reported by the same person, producing stronger correlations than might otherwise be the case (e.g., Fehrmann, Keith & Reimers, 1987; Steinberg, Mounts, Lamborn, & Dornbusch, 1990; Wagenar, 1977). For example, students who drop out may be more likely to justify their behavior by blaming their parents and rating them as less involved than students who remain in school (Rumberger, Ghatak, Poulos, Ritter, & Dornbusch, 1990).

Some researchers attempted to increase the validity of self report data by measuring parent involvement from more than one source (parent, teachers, students). Unfortunately, these studies revealed yet another problem. The low correspondence among the reports of different respondents indicated that one or both may have been inaccurate. For example, Reynold's (1992) measured parent involvement through parent, teacher, and student report. Analyses indicated only moderate relationships at best between the three measures (rs=.0 to .29), indicating substantial disagreement among the raters of the parent's involvement. Without objective

assessments, the "true" level of parent involvement cannot assessed. Rather, an informant's perception is assessed which is likely to reflect some distortion.

Finally, self-report data presents yet another limitation. When parents visit schools, interact with teachers, read to their school-aged children, and assist their children with homework, complex interactions are at work. Closed-ended self report surveys cannot fully capture the dynamic transactional nature of parents' involvement in their children's education. Many of these processes could better be explored through open-ended and observational techniques which would produce rich data, shed light on complex processes, and generate new hypotheses.

Program Evaluations

Program evaluations are considered separately as they represent an intersection of theory, practice, and research. Findings generated from program evaluations can be used to inform the development and refinement of parent involvement programs. At the same time, program evaluation research can shed light on the adequacy of the theories driving the design of programs.

Unfortunately, most of the program evaluations were among the weaker studies as they employed pre-experimental, ex post facto, correlational, or quasi-experimental designs. Only one was designed as a true experiment (Rodick & Henggeler, 1980).[3] Moreover, many of these particular studies reflected all four methodological limitations discussed throughout this report: employment of non-experimental designs, not isolating the effects of parent involvement from a package of treatment services, utilizing non-objective measures of parent involvement, and assessing a variety of non-theoretically determined aspects of parent involvement (e.g., Banks Beane, 1990; Bauch, 1989; Brodsky, 1994; Buroker, Messner, Leonard, 1993; Edge, 1996; Ejlali, 1990; Madden, Slavin, Karweit, Dolan & Wasik, 1993; Slavin, Madden, Karweit, Livermon & Dolan, 1990; Smith & Simic, 1993; Walberg & Wallace, 1988).

It is not surprising that program evaluations were empirically weak. Indeed, they may be the most challenging form of applied educational field research that exists. In addition to the constraints of conducting research in an applied setting (Cook & Shadish, 1994), program evaluations pose special obstacles for the researcher. Interventions are typically applied to

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[3] Haskins and Doini-Ingersol (1985) attempted to employ experimental procedures but modified their design plan in accordance with program realities.

special-needs populations (i.e., at-risk students, low-income families, families with limited English proficiency) heightening clinical and ethical issues. In many cases program evaluations are funded from the larger program implementation budget, creating tensions between research and programmatic needs. Therefore, most are conducted out of necessity, with a limited budget, and within the constraints of a service provider setting in which the rigors of science come second to the needs of the program being implemented. Even under the best of conditions in which randomization to treatment and control groups is possible, differential attrition can render groups not comparable in ways that threaten the internal validity of the design (e.g., Rodick & Henggeler, 1980).

PARENT INVOLVEMENT RESEARCH: NEXT STEPS

This review of the research literature on the impact of parent involvement revealed several problematic issues that should inform continuing research and practice. First, methodological limitations compromised even the most promising findings linking parent involvement to student achievement. Second, researchers tended to measure the effects of program components globally, rather than in isolation, preventing attribution of outcomes to the specific influence of parent involvement. Third, the research was characterized by idiosyncratic definitions and measurement tools, so that constructing a cumulative knowledge base is difficult. Fourth, because parents' behaviors were rarely observed or measured, knowledge about actual parent involvement remains limited. And finally, owing to budgetary and program setting constraints, program evaluations were especially weak.

On the other hand, some emerging trends indicate that the field is progressing toward increased rigor, consensus, and scholarship. Two theoretical frameworks are emerging as heuristic and practice tools in the field. As a classification typology, Epstein's (1994) six types of parent involvement is referenced with increasing regularity. Similarly, Gordon's (1978) model of school-home relationships has informed subsequent research and practice. A partnership model in which all participants -- family, school, and community -- are altered within the collaboration is increasingly the paradigm for designing programs and has been elaborated and effectively put into practice (e.g., Comer, 1988a; Davies, 1992.)

Three randomized experimental studies provided evidence of the impact of parent involvement on student achievement. Tizard, Schofield, and Hewison (1982) improved upon their earlier study (Hewison & Tizard, 1980) and demonstrated the clear impact of parents listening to

their children read at home. The study conducted by Fantuzzo, Davis, and Ginsburg (1995) demonstrated that an intervention program which included a parent involvement component was clearly superior to another without this component. Rodick & Henggeler (1980) found that a parent involvement intervention was more advantageous for children than an in-school intervention. Moreover, while the considerable limitations in the research have been noted, some correlational studies were sophisticated and well-controlled.

We also must make a cautionary remark regarding external validity: in order to study human subjects, their consent is required. This presents an a priori bias to even the most carefully controlled study, since non-participants have declined and may differ in other ways, as well. For example, evidence has been found that when parents read to their children, academic performance improves. But, this relationship has been demonstrated only for parents who naturally read to their children or who have agreed to participate in a program to learn how to do so. It is not known whether parental reading practices would enhance performance if it were imposed on parents who would not do so otherwise. External validity is also problematic in studies in which the response rate for participation was so low as to render the sample potentially quite different from the larger population (e.g., Miller, Manhal & Mee, 1991; Reynolds, Mavrogenes, Hagemann & Bezruczko, 1993; Ritter, Mont-Reynaud & Dornbusch, 1993; Toomey, 1986; Williams, 1982). For all these reasons, policy makers need to take caution before encouraging the practice on a broad scale of what has worked for a self-selected sample.

On a more optimistic note, while the research evidence is less than conclusive, years of practice wisdom, theory, and related areas of research (the importance of the home literacy environment, parental stimulation of children's language development, security of the parent-child attachment relationship, and parental involvement in preschool and early intervention programs) all strongly suggest that parent involvement in their children's formal schooling is vital for their academic success. In particular, the cumulative knowledge generated in the studies reviewed here suggest the importance of several specific types of parent involvement, including the provision of a stimulating literacy and material environment (Snow, Barnes, Chandler, Goodman & Hemphill, 1991), high expectations and moderate levels of parental support and supervision (e.g., Kurdek, Fine & Sinclair, 1995) appropriate monitoring of television viewing and homework completion (Clark, 1993), participation in joint learning activities at home (Tizard, Schofield & Hewison, 1982), an emphasis on effort over ability (Stevenson, 1983) and autonomy

promoting parenting practices (e.g., Grolnick & Ryan, 1989; Lamborn, Mounts, Steinberg, Dornbusch, 1991; Steinberg, Lamborn, Darling, Mounts & Dornbusch, 1994).

There is mounting evidence that each of these parent involvement variables facilitates children's academic achievement. There are also indications that they do so in relatively complex ways that interact with family background and social context variables such as ethnicity (Schiamberg & Chin, 1986), family structure (e.g., Zimilies & Lee, 1991), maternal employment status (Milne, 1989), socio-economic status (e.g., Lee & Croninger, 1994; Marjoribanks, 1987), and gender (Tocci & Englehard, 1991). Continuing to determine the ways in which types of parent involvement positively effect student achievement in different contexts should be a major research priority in the field.

Directions for Future Research

The following seven specific suggestions for future research are offered. Research in each of these areas would make a substantial contribution by providing new evidence of the impact of parent involvement on student achievement.

Use of Experimental Procedures

That only three studies were experimental clearly limits confidence in the research conducted to date. Because non-experimental designs cannot control for all possible threats to internal validity, the findings from most of these studies are less than conclusive. A valid body of knowledge regarding the impact of parent involvement is critical for the development of sound theory and effective practice. ***Therefore, we urge researchers to recognize the value of and employ whenever possible experimental procedures -- notably random assignment.***

To achieve this goal, two advances will need to occur. First, funding allocations to program evaluations and applied educational research in general will need to increase. Conducting high quality empirical research, especially designs employing random assignment, is more costly than less rigorous research with fewer design controls. Second, a new level of partnership will need to be forged between practitioners and researchers to enable the use of experimental procedures in service settings. In particular, program staff concerns related to random assignment and potentially intrusive data collection procedures need to be addressed. The work of the League of Schools Reaching Out and Comer's project may provide useful models upon which to develop effective partnerships.

Isolation of the Specific Effects of Parent Involvement

In most cases -- particularly program evaluations -- researchers were unable to isolate the effects of parent involvement from related variables or from other adults delivering the program. Thus, studies which demonstrated a positive impact of intervention programs for children did not necessarily demonstrate the importance of parent involvement per se as the cause of improvement. ***Therefore, we recommend that researchers (1) specifically measure type and level of parent involvement separately from other components of interventions in order to assess its independent impact on the identified outcomes and (2) evaluate the differential effect of the content of a program from the deliverer (parent or other adult) of the program.***

To achieve this goal, more complex and costly research procedures than are currently the practice would be required. For example, staff (researchers or program staff) would be required to collect ongoing parent involvement assessments, increasing the time and effort needed to implement the research project. In addition, such procedures may be experienced as intrusive and judgmental on the part of parents and staff. Evaluation procedures could be made more sensitive to the needs of parents and staff by including them in the development of measures and protocols. Such an inclusionary partnership is fast becoming the preferred model for conducting evaluations of parent programs (Cochran, 1993; Palanki & Burch, 1995; Parker, Piotrkowski, Kessler-Sklar & Baker, 1996).

Clarification of Operational Definition

Parent involvement is a complex and multidimensional construct with interrelated elements. In the studies included in this review, parents attending PTA meetings, monitoring homework, attending parent-teacher conferences, and reading with their children were all defined as parent involvement. Clearly, parental involvement is all of these and more. ***Therefore, we recommend that researchers make explicit which aspect of parent involvement is being measured and how it fits into the broader construct in order to build on knowledge already generated and create a coherent understanding of the importance of different aspects of parent involvement.***

For this to occur, researchers will need to be explicit about what type of parent involvement is being measured and how it is operationally defined. More important, they will need to develop and validate common measurement instruments to be used across a variety of settings. This would substantially ease researchers' ability to compare their findings with the work of others and build upon existing knowledge in a systematic fashion.

Objective Measurement of Parent Behavior

Few studies measured parent involvement objectively. The majority relied on parent self report, student report of their parent's behavior, or teacher reports of parents. Reliability and validity limitations of self report measures of parent involvement pose serious problems for research in this field. ***Therefore, we recommend the use of objective measurement such as direct observation of parental behavior and standardized data collection tools.*** Again, implementation of such procedures would require changes similar to those recommended above -- increased funding, heightened sensitivity to the needs of staff and families, and a participatory model of program development and evaluation.

Accurate Representation of Family Influences

The majority of the studies considered in this literature review measured parent involvement as the behavior and/or attitudes of the child's mother (either as reported by the child, teacher, or parent). Surprisingly few studies included any other adult in their assessment of parent involvement such as fathers, stepparents, grandparents, (however, see Grolnick & Ryan, 1989). In many cases, the child was asked to report on "parental involvement" without distinguishing which parent was being described, the assumption being that parental involvement was uniform within any family. This lack of specificity does not capture the real-life complexity of the influences on children being studied. A global "parent involvement" score may not be a valid assessment of the child's experience when a child's parents differ substantially in their level or type of involvement. In addition, a single "parent involvement" score misses the influence of non-parental adults (i.e., stepparents, grandparents) in the child's life, potentially underestimating the effects of involvement. ***Therefore, we recommend that measurement of parent involvement be expanded to reflect the impact of more than one parental influence on children's achievement.*** Researchers will need to recognize the complex family structures in which many children live and develop their assessment tools accordingly.

Examination of Differential Effects of Gender

Only a handful of studies examined the relationship between parent involvement and student outcomes separately by gender, to determine if involvement affects boys and girls differently. Several studies have demonstrated clearly that parental styles and parenting techniques have differential effects depending upon the gender of the child (e.g., Crouter,

MacDermid, McHale & Perry-Jenkins, 1990). Moreover, gender differences in achievement orientation (Eccles, 1983; Ladd & Price, 1986), and actual performance also have been documented (Baker & Entwisle, 1987; Entwisle & Baker, 1983). Therefore, there is every reason to believe that interrelationships between parent involvement and student achievement might differ by gender as well.

The studies that did examine gender differences revealed intriguing effects which may have implications for the field as a whole and warrant further examination. For example, Lobel & Bempechat (1992) found that mothers with a high need for social approval had sons -- but not daughters -- with high performance expectations. Conversely, Phillips (1992) found that parents' goals for their children's educational achievement was a stronger predictor of achievement gains for girls than for boys. Hypotheses regarding gender specific patterns of relationships between parental support and child achievement, however, were not supported in Raymond & Benbow (1992).

A further indication that gender differences may exist lies in the small to moderate correlations found in most parent involvement research, rather than the strong relationships one might expect. Perhaps, analyses across gender are masking stronger correlations within one gender. ***Therefore, we recommend that researchers design their studies from the outset to examine relationships between parent involvement and student achievement within gender.*** In order to do so, research will need to be theory driven in order to generate hypotheses about the types of parent involvement likely to have gender-specific outcomes. Of course, sample sizes within gender will need to be sufficient for moderate effects to be detected.

Analysis of Complex Patterns of Associations

In the parent involvement research conducted to date associations between involvement and student outcomes most often have been examined by analyzing relationships between one aspect of involvement and one aspect of achievement for one group of children at one point in time. Parent involvement research is still in its infancy with respect to expanding this simple equation to accommodate more complex interrelationships. The following are some of the complex issues that need to be investigated in future research: (1) Relationships among different types of parent involvement and between each type and the construct as a whole; (2) the relative importance of different aspects of parent involvement at different points in the life of the student; and (3) the complex processes by which different types of involvement interact with each

other to mediate, moderate, or suppress each other's effects on student achievement. ***Therefore, we recommend that researchers begin to take into account the complex and transactional nature of interrelationships between parent involvement and its outcomes.*** These areas of inquiry would produce a more finely articulated body of knowledge regarding the specific effectiveness of different parent involvement practices for different outcomes. Not only would such an endeavor make a significant contribution to theory and research but it would have far reaching practical applications for policies and programs in the field of parent involvement.

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